



Hardy Fern Foundation Quarterly



Summer 2014

THE HARDY FERN FOUNDATION

P.O. Box 3797

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Web site: www.hardyferns.org

The Hardy Fern Foundation was founded in 1989 to establish a comprehensive collection of the world's hardy ferns for display, testing, evaluation, public education and introduction to the gardening and horticultural community. Many rare and unusual species, hybrids and varieties are being propagated from spores and tested in selected environments for their different degrees of hardiness and ornamental garden value.

The primary fern display and test garden is located at, and in conjunction with, The Rhododendron Species Botanical Garden at the Weyerhaeuser Corporate Headquarters, in Federal Way, Washington.

Affiliate fern gardens are at the Bainbridge Island Library, Bainbridge Island, Washington; Bellevue Botanical Garden, Bellevue, Washington; Birmingham Botanical Gardens, Birmingham, Alabama; Coastal Maine Botanical Garden, Boothbay, Maine; Dallas Arboretum, Dallas, Texas; Denver Botanic Gardens, Denver, Colorado; Georgia Perimeter College Garden, Decatur, Georgia; Inniswood Metro Gardens, Columbus, Ohio; Lakewold, Tacoma, Washington; Lotusland, Santa Barbara, California; Rotary Gardens, Janesville, Wisconsin; Strybing Arboretum, San Francisco, California; University of California Berkeley Botanical Garden, Berkeley, California; and Whitehall Historic Home and Garden, Louisville, Kentucky.

Hardy Fern Foundation members participate in a spore exchange, receive a quarterly newsletter and have first access to ferns as they are ready for distribution.

Cover design by Willanna Bradner

HARDY FERN FOUNDATION QUARTERLY

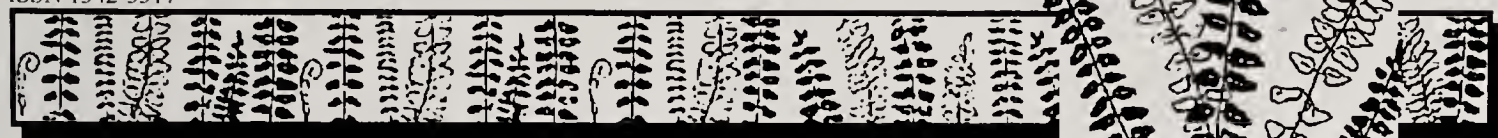
THE HARDY FERN FOUNDATION QUARTERLY

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"Pteridotrivia"

What fern grows on rotted spruce trees on the NW Pacific Coast?

Visit our website at www.hardyferns.org to find out the answer!

President's Message ~ Summer 2014

The annual Fern Festival was held on a beautiful and sunny first weekend of June, at the Center for Urban Horticulture at the University of Washington. This is HFF's premiere event of the year, renowned for the large selection of fern species and varieties. Sales were a bit down from the previous year, maybe due to the too nice weather that had some plant and fern enthusiasts taking advantage in the great outdoors. There was a wonderful selection of ferns assembled for sale with a nice selection of sizes in 4 in. pots, 1 gallon and 2 -3 gallon pots. A good choice of shade companions, many of them rare selections, was also available. HFF members, staff and volunteers, led by Pat Riehl put together a smooth and efficiently run plant sale and program. Our featured speaker Dr. Carlos Sanchez, from the University of Havana, Cuba, was not able to attend due to travel complications. Richie Steffen, Curator at the Elizabeth Miller Botanical Garden and HFF Vice- President came to the rescue and filled in admirably with a great fern program entitled '25 Ferns You Cannot Live Without'. After a few glitches and missed starts with the slide machine, which Ritchie deftly handled, the anticipated program was off on a very nice journey of beautiful fern and plant portraits with entertaining descriptions and dialogue that made for a wonderful program. Thank You Richie on a very nicely done and engaging program. The HFF Board and Member dinner in the adjacent Glass Atrium was fantastic with great food and drink. An entire evening could be made of it. Many thanks to Pat Riehl for leading the effort and to all the members, staff and volunteers who contributed in putting this unique show together and for making it a yearly success. It was a good weekend shared with fellow fern enthusiasts, sharing knowledge and gaining knowledge on the culture and selection of ferns, and checking out what new ferns are available to add to my collection.

The next HFF board meeting will be held at the new Visitor Center at the Bellevue Botanical Garden which had its grand opening on June 14th. HFF was present with an information table as well as with other plant organizations. HFF has always had an amiable relationship due to support from the Shorts Family, who contributed their original home and site to the City of Bellevue for the start of the creation of the Bellevue Botanical Garden. I look forward to seeing the new center of a developing Botanical Garden that has become an important center of events for the community.

Check out the HFF web-site for information on lectures and programs affiliated with this 25th anniversary year for HFF. Some classes have a limited number of openings, so check on availability. If you live in the area or are visiting, a trip to the Rhododendron Species Botanical Garden in Federal Way, WA would be a nice experience. It is the home of the Hardy Fern Foundation and has one of the largest collection of ferns in the Pacific Northwest and is home to one of the three largest collections of Rhododendron species in the world. Fern species and varieties are planted in sweeps and groupings throughout the garden. The fern collection culminates in the world's largest fern stumpery, home to numerous fern species and varieties. This unique garden was built by HFF and is one of a very few of its kind. Now in its 5th year it is filling in very nicely.

One fern I always look for here in the Pacific Northwest is the Giant Chain Fern, *Woodwardii fimbriata*. This fern is common in the northern half of California. I remember about 20 or so years ago, going on an HFF fern foray, to see what was at that time the only known natural planting of this remarkable fern in the State of Washington. It was located on a moist, seeping, steep bank just off the road near the town of Tehuya on the north shore of the southern part of the lower Hood Canal. One fern frond measured nine feet in length. A few years later I found another natural planting by chance, on the west side of Bainbridge Island, just above the beach, again on a moist, steep, and seeping bank. Since, I have found 3 more populations in close proximity of the first finding. A population has been reported on the west side of Blake Island and a few years ago an unsubstantiated report from the west side of Vancouver Island. Now every time I am in an area that has moist, seeping banks, I am always on the lookout for this fern. There are a lot of moist, seeping banks in the Northwest and I expect to come across this fern again.

Happy Fern Gardening,
John van den Meerendonk.

Polypodium virginianum **Rockcap fern, Virginia polypody**

James R. Horrocks

Salt Lake City, UT

The genus *Polypodium* comes from the Greek meaning “many feet”, supposedly alluding to the well branched rootstock, but it may refer to the persistent leaf scars on the rhizomes. Polypody is surely one of the oldest plant names still used in botany. The name is found in manuscripts dating back to 1265 AD and it is even illustrated in a rather fine woodcut from the *Ortus Sanitatis* of 1491. *Polypodium virginianum* has quite a number of local common names such as Golden Polypody, Stone Fern, Rock Polypody, etc. In eastern North America it is considered abundant, found from Newfoundland across to Manitoba south to Missouri and eastward to Georgia and the Carolinas. It is not the Polypody of western North America, that being *Polypodium hesperium*, although *Polypodium amorphum*, from the western coastal areas has disjunct colonies in Wyoming, Colorado, and Arizona, and *Polypodium glycyrrhiza*, also from the west coast, is disjunct in central Arizona.

Polypodium virginianum was originally thought to be synonymous with *Polypodium vulgare*, but the latter is actually the polypody of Great Britain and Europe. These two species are found in Asia together, particularly Japan, which also has the similar looking *Polypodium formosanum* and *Polypodium niponicum*. Strangely, neither *Polypodium virginianum* nor *Polypodium vulgare* are found in the Himalaya, being replaced by similar species *Polypodiodes lachnopus*, *Polypodiodes microrhizoma*, and *Polypodiodes subamoena*.

Polypodium virginianum is known to have diploid, triploid, and even tetraploid states which are subtly different. It is fairly believed that a diploid variant may have been one of the parents of the European *Polypodium vulgare*. *Polypodium virginianum* is the fertile hybrid of *Polypodium appalachianum* of eastern North America and *Polypodium sibericum* of northern Canada, Alaska, and eastern Asia. Wherry mentions some varieties of *Polypodium virginianum*: *acuminatum*, *deltoideum*, and the sterile *bipinnatifidum* which is analogous to *cambricoides*. They are all now, however, not considered to merit taxonomic recognition, according to Lellinger.

Polypodium virginianum grows in part shade, mainly on rocks and talus (epipetric), covering boulders and ledges, forming dense, spreading mats of leathery evergreen fronds. The soil is sub-acid, rich in humus, but rather lean in nutrients. It is rarely epiphytic or terrestrial but does frequent fallen logs.

Description:

The rhizomes are long-creeping at or just below the soil surface and are said to have a sharp, bitter, acrid taste. The multi-branched rhizomes form, as has been mentioned, large interwoven dense mats of rather attractive leathery, evergreen fronds. The rhizome scales are broadly lanceolate, concolourous or somewhat bicolorous with a brown central stripe and pale brown margins that have irregular teeth. The stipes are about one-third the frond length and straw-colored. The rather light green fronds are lanceolate to nearly oblong and are pinnatifid and truncated at the base but acute at the apex. There are usually anywhere from ten to eighteen pairs of pinnae, the erect fronds being from a wee three inches to twelve inches, occasionally longer. The pinnae are rounded or blunt to pointed at the tips or apex. The sori are born halfway between the midrib and the margin of the pinnae and usually on the upper half of the frond. The young sori are round with many golden, glandular paraphyses which are minute hair-like structures. The sori are large and yellow aging to brown and lack indusia.

Culture:

This fern is usually difficult to establish in the woodland garden. Wherry sums it up nicely: "Can be grown in a shaded rock garden, though difficult to get started, as the soil must be rich in humus but poor in nutrients, and be kept both moist and well-drained." Sue Olsen tells us: "The rocky compost of inhospitable sites is more of a common denominator than any particular soil preference.... (it) spreads in nature with picturesque ease on and among rocks from eastern Canada to the lower eastern states.... in spite of its natural beauty and the gardener's coddling, it is not easily introduced in its native East Coast." The author actually grew this species for about six years in northern Utah, but it gradually succumbed, as did its western cousin *Polypodium hesperium*. If you are fortunate enough to have this fern already thriving in your garden, let them be! They will probably appreciate your neglect.

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What about the Miller Garden?

Jo Laskowski ~ Seattle, WA

From the winding road, it's a steep, straight drive down to limited parking at the house, where we're greeted by Richie Steffen, curator of the Miller Garden. We gather for coffee, tea, and cookies while he distributes handouts and bits of fern fronds and orients us to ID characteristics. Pieces of *Blechnum* and *Athyrium* and *Dryopteris* and *Polystichum* are in our hands and we look at things to help us sort out the ferns we'll be seeing today in the Garden. We're here for one of the limited tours that Miller Garden offers as part of its broader mission of horticultural education.

Miller Garden is unique in that it's a public garden within a gated—and very private—community. These circumstances limit outside access—here read RABID GARDENERS—to 500 guests per year. This is about 33 events a year on site, if you cap a walking group at a manageable 15. That's a stunning amount of work to do if you're part of the very limited garden staff and two seasonal interns.

The Garden is a four-acre parcel on a steep hillside north of Seattle, WA. It's inside the Highlands, conceived and created by the Olmstead Brothers. Their vision of large parcels in the native woodlands overlooking the Puget Sound, in a largely self-contained community, came to fruition in 1907. Betty and Pendleton Miller came to the Highlands in 1952, and when Betty died in 1994, her passing endowed the Garden and guaranteed its survival. Which was good, because Betty was a firebrand of a woman, creating and pushing and causing and promoting amazing changes in the horticultural community of Seattle, and in the city's very appearance.

On her own property, she was forward-thinking and inquisitive about all plants. The garden contains some 4,000 species, many of them unique in the western hemisphere. Some plants especially pleased her, like *Acer japonicum* 'Aconitifolium,' so multitudes light up the garden with gorgeous reds in the fall, and thousands of ephemerals explode in the garden in the spring.

This day we've come for the ferns. It's June 18th, 2014, the ferns are up and out. The

weather is comfortable, with good light for photos. We're toured below towering Doug firs, along serpentine paths, down steps, out to a viewing platform, back and around to the house. Ferns are everywhere, and in this garden Richie has gleaned observations that he's sharing with us. He offers everything from maintenance practices, to plant manipulation, to admitting his own, well, over-the-top fascination with cultivars. Usually the more crested, divided, twisted, and/or contorted, the better.

"Good drainage, but with regular water and winter protection from the rain." Not impossible to achieve, not easily achieved, maybe even accidentally achieved, but it's what the thriving *Cheilanthes argentea* he shows us seems to like. This xeric isn't an easy fern to grow in the Northwest, so you pay attention to success. "Our native lady fern, *Athyrium filix-femina*, is larger than any other lady fern in the

world." Great. We've got one of the world's largest weeds. *Adiantum aleuticum* and *Adiantum pedatum* are notoriously difficult to tell apart, identification hinging on the presence or absence of one pinna in a particular spot. Even then the two species don't cooperate, said pinna appearing willy-nilly between them whether it should or shouldn't. The origins of these species, though, can give a clue to their identities. "You know you've got *Adiantum pedatum* if it dies after you plant it in the garden."—*A. pedatum*'s from the East Coast, no matter how many pinnae it's got, and it doesn't like the Pacific Northwest.



Richie Steffen

Photo courtesy of Loyd Jacobs

Polystichum are called shield ferns because of the shield-like indusia. This makes as much sense as most common names do. Some *Polystichum* are dry shade tolerant, too—our native sword fern, *Polystichum munitum*, and some of the *Polystichum setiferum* cultivars, like those in the **Plumosomultilobum Group** and the **Rotundatum Group**. *Ganoderma applanatum*—artists' conks—are growing on a habitat tree. The normal changes in an evolving, living garden get to happen here. Much shortened in height to reduce its potential hazard, the remaining trunk is able to provide animal, insect, bird, and microorganism habitat, and contribute its nutrients to the soil as it breaks down. There are horizontal compression ridges on the leeward side of a *Fagus sylvatica* 'Purpurea,' and they tell stories about the tree's adaptation to its location, and the dominant winds off the Puget Sound. *Blechnum novae-zelandiae* is a recent addition, and is looking to be more hardy than not. It takes a hit sometimes in the winter, and then a little while to come back. Ah, *Polypodium*, a favorite genus of mine. *Polypodium glycyrrhiza*, our native licorice fern and typically epiphytic, here running on the soil as a groundcover; the less commonly seen *P. x mantoniae* 'Cornubiense,' a bipinnate to tripinnate beauty; the fork-tipped form *P. glycyrrhiza* 'Bifid Form'. There are tricks to using and placing *P. glycyrrhiza* in the landscape, because it's evergreen in the winter but dormant in the summer. "Wintergreen"—try to remember that! Good to know is the dry shade tolerance of some of the *Dryopteris*—*D. affinis* 'Cristata,' *D. affinis* 'Cristata Angustata,' *D. x complexa* and its cultivars 'Stableri' and 'Stableri Crisped.' In this area we garden under a couple of native trees

that suck water from the soil so ferociously that we salivate when we find something—anything—we might be able to grow under them. *Woodwardia unigemmata*, with its gigantic fronds that emerge an enticing rusty-red, needs to be pruned selectively, removing older fronds only after new ones come on, and even then only if truly tattered. The more retained foliage, the more energy available for the storage that hedges your bet in trying winters and droughty summers. *Adiantum x mairisii* becomes more compact and more robust with some sun on it. *Athyrium filix-femina* ‘Caput Medusae’. The Victorian fern craze hasn’t died out, apparently. This is shown by the very fact of this fern being in the Miller Garden, and it’s so intensely crested that it looks like parsley. And yep, it came from the UK. The man has connections.

We’re back at the house, the tour winding down. This is an amazing garden, a living laboratory, and we got the coveted, observation-backed details about ferns that so delight plant geeks and curators, and bore everyone else. And of the woman who established and loved this garden? An insider story has it that she gardened with a cigarette in one hand and the phone wedged between her face and her shoulder. I left satisfied.

Confessions of a Fern Fanatic

Ralph Archer

Louisville, KY

About twenty five years ago, my wife and I bought a home on two acres with lots of big trees. We landscaped it by fits and starts. We hired a landscaper who planted juniper bushes along with a small group of daylilies and Japanese iris on the clay bank along a creek. All the bushes, including some replacements, eventually died due to root rot as the creek flooded them regularly. My wife started dividing and re-planting the few daylilies and iris as the bushes died. This eventually became a large daylily-iris bed along the creek in a sunny area. I added a few trees, tried to improve the grass under a number of big trees, and raised roses and vegetables. In the fall, I mainly cleaned up the leaves and piled them along an old fence row as well as digging in some in the vegetable garden.

About twelve years ago, everything changed. We had a very wet spring with water puddles in places never before so wet. Several of the dogwoods I had planted died due to wet feet. I called in a new landscaper who sold me three crabapple trees which he assured me would stand the wet soil. I really don’t know if they would or not since we have not had such weather since, but I hope so since two are still growing.

I then had a brilliant idea! I thought that a bed of plants around the new trees would look nice and so I asked the man to draw up something for consideration. He did so, showed it to me and said a price. I said eight hundred fifty you got to be kidding dollars, and he assured me that he was most serious. I decided that I could handle this program with no sweat and a lot fewer dollars. So I went to a nursery to buy the necessary plants. Since the area was shady, I went into the shade plant department. The first plants I bought were five Japanese painted ferns (*Athyrium niponicum* ‘Pictum’). When I went to pay for

them, I passed by a group of Hosta on sale and thinking that five ferns would not really be enough to fill up the bed in progress, I bought two blue and two green Hosta.

This was the start of a love affair with and addiction to plants that has become a real joy. It has also liberated me from the need to improve a stand of grass. If it grows grudgingly, the area becomes a prime candidate for a fern and plant bed which eliminates more of the grass cutting. As I had such an area on one side of the yard, I just had to start another bed while I was still working on filling up the original bed around the crabapples.

At first I bought and planted mainly locally native fern species. I tended to specialize in the ones that I thought were the easiest to grow and I learned how to successfully divide and grow some. I also learned how to kill some including some vigorous ones that many think of as pests like *Onoclea sensibilis* and *Dennstaedtia punctilobula*. I was also lucky. I became acquainted with a professional botanist about eighteen months into the program. I had started cleaning and planting along the old fence row, where I had dumped leaves for a number of years. He came by in late spring before I had time to go into my planned cleanup program in this new area. He became very excited when he saw the native sessile trillium, green dragon and Solomon seal that were coming up in several areas including along the fence row. After he left, I literally dropped everything, went to the store and bought the book on wild flowers he had recommended. Mercifully, I did not tell him what my original plans were as I think it might have caused a stroke. I had planned to weed out much of what gave him such a burst of excitement.

This sort of program requires plants in substantial number so propagating ferns from spores is a highly recommended practice. I learned that if you are successful, it is something like being the Sorcerer's Apprentice. A few packets of spores make more ferns than most people have room for. However they make lovely gifts, especially if you help a fellow gardener deal with what many see as a problem - - SHADE!

While ferns are still my first love, the wild flowers along the fence row guided me to the belief that ferns need other plants for company and contrast. This led me to a wonderful world of plants, such as Arisaema, Arum, Asarum, Hosta, Pulmonaria, Trillium and all the rest, which shine in the darkness, and so, light up the shade garden. I have come to think that a large scale planting of ferns in the shade is like the jeweler laying down a cloth of black velvet on which is displayed the individual gemstones, i.e., unusual forms of ferns, various variegated plants and wild flowers such as Wild Gingers, Bloodroot, Virginia Bluebells or Trillium. In addition to the beauty of color of variegated ferns, the color of non-variegated ones, which ranges from a pale yellow-green to a lustrous polished dark green, adds to the scene. The variety of fern frond forms makes for even more interest. It seems to me that this diversity from the world of plants is needed to make the most effective shade garden. I am constantly finding new plants to add, which makes for a wonderful life in my garden.

It was all there.

Jo Laskowski

Seattle, WA

It was all there in the galvanized tubs, stuffed with living ferns of every sort. It was all there on the display board, where pressed fronds took center stage and magnifying lenses made large their miniscule, perfect bits. It was all there in every piece of literature and every photograph and every drawing.

It was all there.

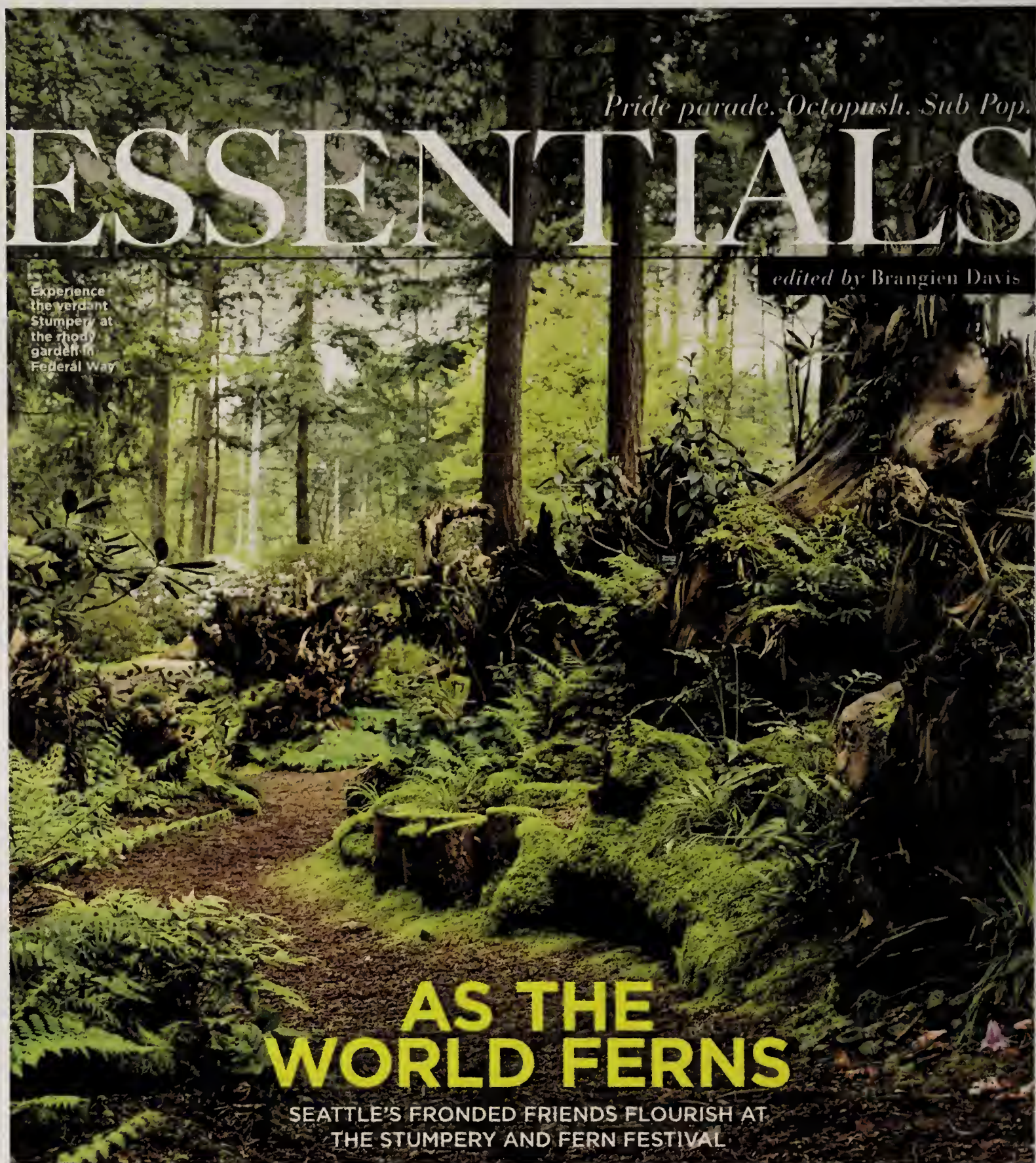
Did you miss it? Did you miss the meander from the middle Devonian through the Carboniferous into our own epoch? The evolution from branching structure to complex leaf and frond? The masterful artistry of circinate vernation? The ballet of water-dependent reproduction with spores and prothalli?

And there was the Hardy Fern Foundation, celebrating its twenty-fifth anniversary. From the over-caffeinated group of fern enthusiasts of twenty-five years ago to the organization of today, still celebrating the astounding 375 million years of ferns on the planet. At the 2014 Northwest Flower and Garden Show.

The mystery and history and elegance that every living fern encapsulates—did you miss it? (see photo page 47)

Welcome New Members!

Nancy Campbell	Marcy Hermansader	Sandra Moon
Richard Carroll	Jeffrey Hochstetler	Krista Peterson
Gabrielle DeFusco	Virginia King	Gloria Reed
Vicki Dyer	Heidi Koonz	Tammy Romero
Barbara Espinoza	Darlene Abbott Kordonowy	Kate Shirley
Judy Griesel	Kevin Lane	Rene Stratton
Cheryl Guss	John Mantle	Jorn Stuhmeier
Andrew Hartley	George E Minter	Ellen Wanless



Pride parade. Octopush. Sub Pop.

ESSENTIALS

Experience
the verdant
Stumpery at
the rhody
garden in
Federal Way

edited by Brangien Davis

AS THE WORLD FERNS

SEATTLE'S FRONDED FRIENDS FLOURISH AT
THE STUMPERY AND FERN FESTIVAL

THE NORTHWEST CLIMATE is heaven for ferns, where their fronded glory unfurls in countless dappled rockeries and shady groves. And as the saying goes, if you can't beat 'em, join 'em. In 1989, a group of fervent fern fans in Seattle formed the Hardy Fern Foundation, committed to celebrating and propagating the plant via display gardens, including the primary study garden at the Rhododendron Species Botanical Garden (rhodygarden.org) in Federal Way. That's where you'll also find the Fern Foundation's pride and joy, the **Stumpery**. Based on a popular Victorian gardening technique (the Victorians were apparently mad for ferns), the Fern Foundation built the Stumpery in 2009, hauling more than 130 logs and stumps into a half-acre woodland. Hundreds of ferns have been planted upon and among the stumps in what's now the largest public stumpery on the planet. Visit the Stumpery in full bloom this month, and for more fern fun, head to the foundation's annual **Fern Festival** in Laurelhurst (6/6–6/7, *Center for Urban Horticulture*, 3501 NE 41st St.; hardyferns.org), featuring a huge range of foliage for sale, expert talks and the chance to become a member—and thereby gain exclusive access to the coveted spore exchange. **BRANGIEN DAVIS**

JUNE 2014 **SEATTLEMAG.COM** 23

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***Adiantum aleuticum*
'Subpumilum' at the
Miller Garden.**

Photo left courtesy of
Loyd Jacobs

***Polypodium
virginianum***

Photo right courtesy of
Sue Olsen

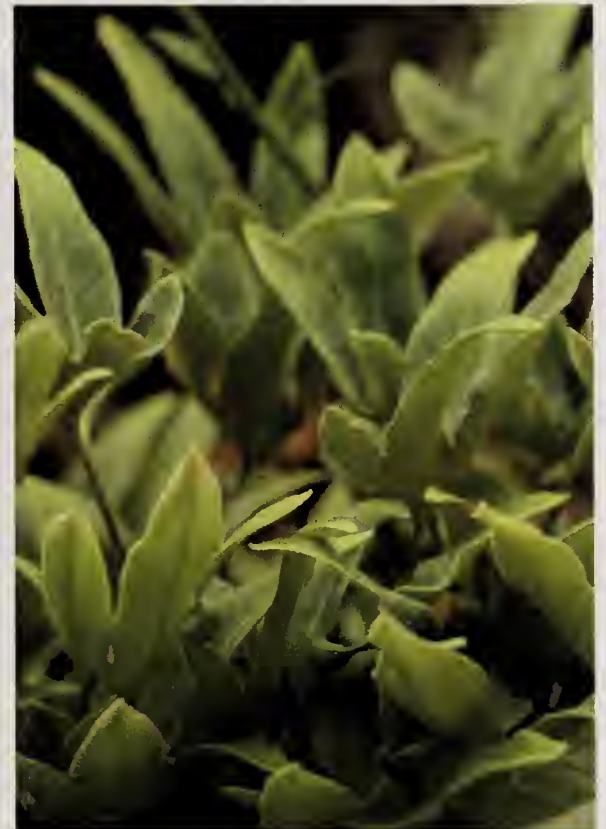


**2014 NW Flower and
Garden Show**

Photo left courtesy of
Nancy Strahle

Equisetum telmateia

Photo below courtesy of
Richie Steffen



***Pyrrosia polydactyla*
at the Pyner Garden**

Photo above courtesy of
Richie Steffen

Grand tour 2013 ~ US Fernists to UK

Part 1

Richie Steffen

Federal Way, WA

On tour: Naud and Wim Burnett, Sue Olsen, Pat and Walt Riehl, Richie Steffen. Leader Martin Rickard

24, July 2013: All participants arrive London Heathrow circa 12.00 noon. Take taxi to hotel (it's very near):

On this our first evening Martin and I picked up the new arrivals for dinner at the home of his cousin Richard Treganowan and his wife Diane. Garden as usual was a delightful display and dinner was a lot of fun, good chats and great food.

25/7 On the road to drive to the southeast coast of England heading for Southend-on-Sea in Essex to visit Tim Pyner. Tim has a small garden in a residential neighborhood. It is filled with species ferns and naturally occurring hybrids. As we arrived the front of his house was blocked off and had several police cars around it with about 20 officers on the sidewalk. It turned out that they were doing a check for insurance on drivers and the street side in front of Tim's place was where they were pulling over drivers and ticketing them.

Upon entering the garden we were greeted with troughs full of unusual and happy xerics. Further along a vigorous specimen of *Pyrrosia polydactyla* was especially impressive. The list continues with *Blechnum procerum*, *Todea barbara*, a splendid *Dicksonia fibrosa* plus an assortment of doodias and adiantums just to name a few of the highlights. It is a bright open sunny garden and further back



Tim uses large herbaceous plants that grow up in the summer to shade his ferns along with a select group of large woody shrubs and small trees. He is a savvy plantsman with in addition to ferns collections of hardy *Schefflera*, choice southern hemisphere plants, *Hoheria lyallii* (look it up!), hardy *Protea*, and *Dacrydium cupressinum* (a funky NZ conifer). His herbaceous plants included a collection of tree dahlia species (yum! yum!).

Tim served lunch followed by an abundance of cakes (yes that is plural!) As we left

some of the police officers came over and asked what we were looking at so intently and we had a brief fern conversation with them (future fern converts? – I think not ☹) Unfortunately, our second garden for the day had to cancel due to illness, so we spent extra time at Tim's garden then left for our hotel in New Market, Suffolk. New Market was a horse racing town and was filled with betting shops and all things horse. It was an old charming hotel with an open courtyard. Once we were settled we had dinner in the court yard, then I took a walk around the main street with Martin. When the races are not on this town closes up early.

26/7 - Newmarket to Gill and Bryan Smith, Oulton Broad

We did a lot of driving today. Once we were out of town Martin pulled over so I could drive. It was my first time with a manual in the UK. Very easy and relatively boring driving. I was able to get the hang of shifting on the left with no problem. We are having a contest to see who stalls the most, so far Martin is ahead.



Our first stop was at Gill and Bryan Smith's in Oulton Broad. They live near the coast and have a very low elevation garden with a great assortment of ferns, both species and cultivars. I first met them on the California fern tour a few years ago. They handle all of the merchandise for the British Pteridological Society (BPS). In touring their garden among a number of very striking plants were many cultivars including *Polystichum setiferum* (Medio-deficiens Group) and a sporeling of *Athyrium filix-femina* (lady fern) raised by Robert Sykes (a long time BPS member) that totally rocks! (And is completely unobtainable!) A specimen of a colorful *Blechnum patersonii* caught our attention. After the garden tour we had lunch and left for the next hotel 3 ½ hours away. Gill and Bryan have a long narrow driveway and Martin let me back up and turn the mini-bus around (thanks Mom and Dad for making me always back the car down the drive of the Maryland house!)



We hit the road and arrived in Market Rassen for the night.

27/7 - Join with BPS national meeting. Field meeting, not gardens. Overnight still at Advocate Arms in Market Rassen

We had a little extra time this morning so we found a gas station and filled the tank £79 (\$121.53! or \$6.21 a gallon!) That should make you feel better the next time you are at the pump. The woodlands we were walking this morning were nearby. We arrived and met about 15 other folks from the BSP, some we knew from past trips others from the local area. Neill Timm coordinated the trip and led the way. We followed an old road to a trail where we saw an uncommon form of *Dryopteris*, formerly *Dryopteris affinis* ssp. *borreri* now, *Dryopteris borrieri*. There were tons of *Dryopteris dilatata* and bracken fern around. We hiked to a few other locations to see the only *Polystichum setiferum* in the area (it's not rare, but rarely grows in this region) along with a few *Asplenium scolopendrium* (one forking on the tips).

After lunch at a local pub we left for an alpine nursery, Potteron's. Along the way we stopped to see a patch of horsetail. The same large species grows in the NW, but is a different variety. This form has ivory-green stems instead of bright green stems. (see photo page 45) We reached the nursery and walked around, I used to buy plants from them when I first worked at the Miller Garden until they no longer shipped to the US.



Martin Rickard in a sea of bracken fern.

The final fern of the day was found at the end of a long hike down a trail to a narrow path made by logging equipment amongst acres of tall bracken fern. In an old drainage ditch was a patch of *Polypodium vulgare*.

28/7 – Morning visit Neil Timm's fern nursery.

Our first stop was The Fern Nursery, Neill Timm's nursery. It was originally started by his parents who still live on the property. The growing poly-houses were surrounded by garden and some nice specimens for photographing. I bought an interesting fern, an unusual form of dwarf horsetail. *Equisetum scirpoides*, that mounds up on itself and forms short columns of wiry grass. An impressive waterfall garden featured a large scale planting. The nursery offered a comprehensive assortment of mostly British natives including an extensive selection of cultivars.

We left and started west towards Wales. Near Doncaster we stopped at Brodsworth Hall, an old Victorian estate recently given to the National Trust for preservation. They are

keeping it as is as a representation of the estate after WWII. The interior is shabby, but educational. The restored gardens have a large formal fern grotto that was interesting. Plants of *Dryopteris filix-mas* with assorted tree ferns, *Asplenium scolopendrium* and *Polystichum* cultivars dominated the fern content. We had a walk around and left just before thunderstorms moved in and dumped rain.

It poured off and on during the drive and we traveled through some beautiful country side in the Peak District, but with lot of twists and turns in the road. We arrived, at the Palace Hotel a large grand hotel that sits on top of a hill above the town of Buxton. The town is an old resort town where people came to the natural hot springs for spa treatments.

We were invited to Roland Ennos and Yvonne Golding's house for dinner and to pick up books that several of us had bid on in an earlier BSP fundraising auction. They have a very small garden in town, but it is packed with plants, many different types of ferns and lots of cultivars. Quite a bit of the collection is in terracotta containers. Yvonne had a nice collection of tender ferns in a small greenhouse. They just sold the property and will be moving to York to start a new garden. Yvonne had all of our books upstairs and the books I won at auction covered a bed. I won 19 books that comprised about 30 volumes. IT WAS FANTASTIC!! Great classic works with fine color plates, excellent modern books that are hard to find or a good deal. My fellow travelers are taking bets on whether I can get them all back!



L-R Roland, Martin, Wim, Naud, Sue, Walt, Yvonne, Pat and Richie.

29/7 –Leave Buxton for Tatton Park to see the Victorian Fernery

The first stop of the day was Tatton Park a huge garden and home of the Royal Horticultural Society's Tatton Park Flower Show (which just finished yesterday). We did not have enough time to see the entire garden, but we visited the Victorian fernery which is attached to the conservatory near the central palace. The fernery is a long narrow greenhouse with mound up plantings on either side of a center walkway. The diversity of ferns is not great, but the result of the plantings is beautiful with large tree ferns, mostly *Dicksonia antarctica* (a fern we grow on the deck of the Miller Garden), *Woodwardia radicans*, with large bold arching fronds with masses of *Pteris cretica*, a common house plant fern. At the back of the fernery, a waterfall falls into a small pool. After the fernery I had 20 minutes to see the remaining miles of garden!! I took a few photos and started to head back. About 200 yards from the mini-bus a thunderstorm let loose and it just poured

down rain. I dashed to the bus where Martin drove closer then I dashed back out in the rain to gather the stragglers to the car. Drove to the next stop, mildly soaked.

Near Liverpool we stopped at Michael Hayward's house. He is an active member of the British fern group and has a suburban garden with many interesting ferns. Towering osmundas surround an attractive ornamental pond near the back yard entry. A number of his polypodiums were up (for the non-gardeners it

is a group of ferns related to the NW licorice fern that grows on trees and rock eventually forming patches). His tree fern collection is extensive and includes the lovely *Lophosoria quadripinnata* which is a tad too tender for us. And the huge fronds of glorious *Woodwardia unigemmata* kept our cameras busy. I took a bunch of photos and notes. Had lunch, then he showed us several of his rare books and bound herbariums. He has a collection of New Zealand herbarium books that are filled with decoratively arranged



fern fronds. These were done in the late 1800's. In addition he shared his extensive collection of Jamaican doyleys that were fashionable in the late 1800's and early 1900's.

On to Wales! It is a lovely drive. The highway runs along the Irish Sea with small towns and cities built of gray stone set against the rough coast line. We passed by three Castles, with the last and oldest at our destination Criccieth an old small town that has been relatively unchanged over time. An old castle is perched on a hill by the sea and at night is dramatically lighted. Most of the houses and businesses are built from a gray stone and there is an old established quality. Met William Hughes for dinner. We will be seeing his garden tomorrow. Ordered locally shot pheasant at William's encouragement (he knew the estate where it had been shot earlier that day 3 buckshot in my pheasant, but it was really delicious!).

30/7 - Dick Hayward, Criccieth to Caernarvon

William Hughes led us today with Dick Hayward's garden the first stop this morning. Dick is Martin's old business partner and did the spore propagation for their nursery. He has a small garden in Caernarvon with primarily species ferns and rare and uncommon trees and shrubs. We entered the garden through a side courtyard. The narrow corridor was lined with ferns and hostas in containers. On the wall at the far end was a spectacular form of *Davaillia mariesii*, a hardy rabbit's foot fern, with deep red new growth. Once

through the door the garden opened up to a slightly chaotic mix of alpines, perennials trees, palms, shrubs and ferns. He had a large specimen of *Magnolia delavayi*, a very rare magnolia, loaded with flowers. Dick said it only flowers at night with the blooms fading the next day, very fragrant. On the other side of his house was a small greenhouse filled with very rare ferns such as *Davallia tasmanii* perfectly grown in containers. Great show plants. His original stock plant of *Adiantum taiwanensis* was in here. Trust me it is rare and lovely. Left for Crüg Farm.



Adiantum taiwanensis

Bleddyn and Sue owners of Crüg Farm, unfortunately, were not here having left earlier in the day to fly to Seattle!! We met Robbie their propagator and fern enthusiast and walked around with him. He showed us some of the ferns in production and we looked briefly at the garden. It was only a short spur of the moment stop, but it was good to see the nursery.

The last stop of the day was at William Hughes' garden. Much of the garden is built on a very steep slope with narrow vertigo causing pathways and stairs. It is hard to keep your attention on this narrow path because you are surrounded by a lush jungle of choice ferns and select woody and herbaceous plants. He has an excellent collection of Solomon seal relatives scattered through the garden. The hill side is dotted with specimen ferns. There was a spectacular grouping of *Polystichum proliferum x acrostichoides*, three to nearly four feet tall robust plants with a strong upright habit. The fronds were narrow and a deep glossy green. I was feeling a touch of plant lust.

31/7 – Criccieth to Joy Neal, Machylleth

Steady heavy rains today. Worked our way south along the Welsh coast. We were running early so we stopped at a small town just before Joy Neal's garden, Llwnceilyn, to do some site seeing and visit a used book store. It poured down rain from the moment we left the mini-bus to the time we returned. Everyone was soaked! Shortly after loading up we arrived at Llwnceilyn. Joy's garden is built on part of the old family estate. We arrived for lunch and local BPS folks Barrie Thomas and his wife Linda? joined us. We chatted away waiting for a break in the rain. It became clear that there would be no break. We all suited up for a very wet garden tour. Her garden is quite lovely. Semi-formal hedged gardens hold perennial gardens in front of the house. Wooded areas sloped off the north side. At the bottom of the slope was a fast running creek with woodland plantings on either side. We trotted through the rain enjoying the garden, sorry too wet for pictures.

Speaking of pictures....all photos courtesy of Richie Steffen.

Observations rooted up...

Jo Laskowski

Seattle, WA

In a manner of speaking, Richie Steffen has the snout of a truffle-hunting porcine, and its persistence, too. He's the curator at the Miller Garden in Seattle, WA, and is a well-known and hugely popular speaker. Those of us in the fern part of his horticultural orbit know him as an avid collector of all ferns, obtainable and allegedly unobtainable. Especially the latter, and hence the comparison to the noble porker.

On June 6th, the Friday evening of Hardy Fern Foundation's two-day 2014 Fern Fest sale, Richie was the guest speaker. Right off the bat?—major technology failure. To fill what was taking a rather long time, he bantered and joked with the relaxed audience. Watching him do that was almost as good as hearing him talk about ferns!

He perambulated through “25 Ferns you Cannot Live Without,” showing examples from *Adiantum*, *Asplenium*, *Athyrium*. *Woodwardia* and *Woodsia* and *Pyrrosia*. *Blechnum*, *Dryopteris*, and *Polystichum*. He had favorites in every genus, and peppered his talk with pithy observations about their culture or growing quirks and tips for the Pacific Northwest.

***Blechnum chilense*:** “Don't cut back the old fronds until after new fronds have come up. Because the new fronds will grow taller than the old, remaining fronds, and you can manipulate the fern's height.”

***Dryopteris crispifolia*:** “...isn't affected by leafhoppers here.” Translation: It won't morph into an albino fern right before your eyes as insatiable leafhoppers suck every speck of chlorophyll from the fronds.

***Cryptogramma crispa*:** “Buy all your rare ferns before you know anything about growing ferns.” Translation: I grew this fern successfully before I knew how it was supposed to be grown, then I killed it.

***Matteuccia orientalis*:** “...doesn't run and root like *Matteuccia struthiopteris*.” This is good to know because when it's happy, *M. struthiopteris* isn't shy about confiscating your acreage.

***Pyrrosia sheareri*:** “...is in tissue culture now, which is totally sad for plant collectors.”

***Polystichum setiferum* Plumosomultilobum Group:** “Because long names are better.”

And the cultivars he chases, and finds! The **Fimbriatum Group**, the **Crispum Group**, the **Cristatum Group**, the **Spiralis Group**, and ‘**Sutromarginatum superlineatum**,’

found in *Asplenium scolopendrium*. It seems there are endless possibilities for this plant collector! The soft shield fern, *Polystichum setiferum*, showed up with **Divisilobum Group**, **Bevis Group**, **Rotundatum Cristatum Group**, **Congestum Cristatum Group**. And from one of his favorite collections—*Pyrrosia lingua*—images of *P. lingua* ‘Eboshi,’ ‘Kei Kan,’ and from its **Cristata Group**.....

The lights were up, the presentation over, but I’d be seeing Richie again soon.

Upcoming Fern Events!

Ferns for all Seasons

By Sue Olsen - Renowned author and owner of Foliage Gardens Nursery
September 25th, 2014, 10:00 am - 12:00 pm
Bellevue Botanical Garden, 12001 Main Street, Bellevue, WA 98005
Members \$25.00, Non-members \$35

Great Plant Picks, “Made in the Shade”

Richie Steffen is curator for the Miller Botanical Garden, where he oversees the Garden, rare plant collections, and supervises the Great Plant Picks program. He will illustrate how to choose the best and most reliable trees, shrubs perennials, and vines for shady garden sites.



August 12, 2014, 7:00pm
Bellevue Botanical Garden
12001 Main Street, Bellevue, WA 98005
Members \$5.00, Non-members \$15
Payable at the door.
No pre-registration. Doors open at 6:30pm.

Fall Foliage Festival and Plant Sale at the RSBG

Celebrate the fall season with free admission to the Rhododendron Species Botanical Garden’s (RSBG) week-long Fall Foliage Festival & Plant Sale. The Festival is open from 10 a.m. to 4 p.m. Saturday, October 18 to Saturday, October 25 at 2525 S. 336th St., Federal Way, located where I-5 and Hwy 18 meet. **Regular admission is waived for this special week-long celebration of fall** – where visitors can enjoy a dazzling display of rich autumn colors.



The Festival features fall color tours, speakers, demonstrations and excellent deals on outstanding species rhododendrons, ferns, plus rare and choice companion plants. With

every \$50 purchase of plants customers will be rewarded with one free “Garden Pass” admission to give to a friend. Festival attendees will be able to enjoy daily tours of both the RSBG fall color and the Pacific Rim Bonsai Collection.

In addition to the daily plant sale, visitors will enjoy special focus days throughout the Festival:

- **Saturday, Oct. 18th** is the Opening Day Plant Sale. Enjoy special pricing on a nice selection of rhododendrons, ferns and companion plants.
- **Sunday, Oct. 19th** is Wag Fest. Dog owners and their well-behaved dogs are invited to enjoy the Garden together. This is the **ONLY** day dogs are welcomed into the Garden. Enjoy displays, activities, the F.I.D.O. Drill Team at 1 pm, and a 1K Dog Walk.
- **Friday, Oct. 24th** is Bonsai Day. Learn more about the art of bonsai from the special speaker and tour of the Pacific Rim Bonsai Collection.
- **Saturday, Oct. 25th** is Fern Day. Discover more about the fascinating world of ferns growing in the RSBG’s woodland gardens and the Hardy Fern Foundation’s Victorian Stumpery. **Speaker, John van den Meerendonk**, 1 pm. Tour at 2 pm.
- Visitors will also enjoy the 5,000 square-foot Rutherford Conservatory showcasing tropical vireya rhododendrons and companion plants, all set amid towering boulders and a stream with splashing waterfalls.

For more information go to rhodygarden.org and click on events or call 253-383-4646 ext. 140.

Hardy Fern Foundation Fall Social

Join us as the Hardy Fern Foundation celebrates its 25th Anniversary at the newly remodeled Bellevue Botanical Garden!

Saturday, October 11th

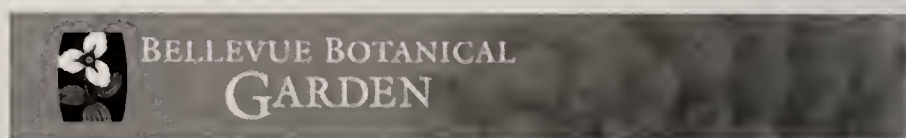
11:00 am to 3:00 pm

Enjoy an afternoon Potluck, Fern Sale, and enjoy member Arlen Hill’s presentation, “Plants of Southwest Sichuan and Guizhou Provinces” We will also be featuring a “Fern Frond Showcase”.

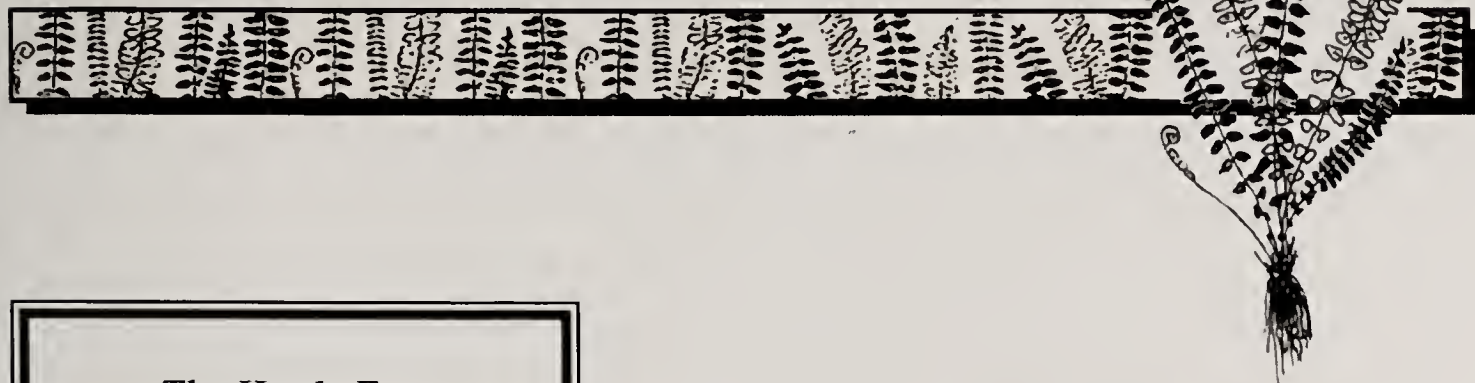
Please RSVP to Jo Laskowski

Hff-jo@rhodygarden.org or 253-838-4646, ext 111.

Bellevue Botanical Garden
12001 Main St, Bellevue, WA
98005



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